

Introduction to Networking

Understanding Network Programs, Processes, and Protocols

WB17.0



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network interface card (NIC)—A NIC is a workstation or PC component (usually a hardware card) that allows the workstation or PC to communicate with a network. A NIC address is another term for hardware address or MAC address. The NIC address is a unique value built into the NIC.

peer-to-peer—Two programs or processes that use the same protocol to communicate and perform approximately the same function for their respective nodes are referred to as peer processes. With peer processes, in general, neither process controls the other, and the same protocol is used for data flowing in either direction. Communication between them is referred to as “peer-to-peer.”

Point-to-Point Protocol (PPP)—PPP is an Internet standard communication protocol that offers support for multiple network protocols, data compression, host configuration, and link setup. PPP is based on the HDLC standard.

router—A router is a Layer 3 device, with several ports that can each connect to a network or another router. A router examines the logical network address of each packet, then uses its internal routing table to forward the packet to the routing port associated with the best path to the packet’s destination. If the packet is addressed to a network that is not connected to the router, the router will forward the packet to another router that is closer to the final destination. Each router, in turn, evaluates each packet, then either delivers the packet or forwards it to another router.

Sequenced Packet Exchange (SPX)—SPX is a Novell NetWare’s proprietary Transport Layer protocol.

Serial Line Internet Protocol (SLIP)—SLIP is not an official Internet standard, but a de facto standard included in many implementations of TCP/IP. It was originally developed for use over dedicated circuits or leased lines, and therefore does not include provisions for establishing a connection over the telephone network.

server—A server is any program that provides a service to a client program. This term is often used to refer to the computer that hosts the server program; however, a server program can also run on a computer that normally functions as a client. See client.

subnet—A subdivision or section of a network, where users are grouped logically based on their network address is referred to as a subnet.